CLAIMS

1.   A system for estimating a self posture of a leg
type moving robot being controlled to follow a determined

5   desired gait, comprising:

a posture angular velocity detecting means for
detecting a posture angular velocity of a predetermined
part of the robot;

a slippage-free posture angular velocity estimating

10   means for estimating a posture angular velocity of the
predetermined part on the basis of motion state amounts
of the robot, including at least one of a desired motion
of the desired gait, a detected value of a displacement
of a joint of the robot, and a desired value of a

15   displacement of the joint, on the assumption that there
is no slippage on a contact surface between the robot and
a floor;

a drift correction value determining means for
determining a drift correction value relative to a

20   detected value of the posture angular velocity detecting
means on the basis of at least a detected value of the
posture angular velocity detecting means and a posture
angular velocity estimated by the slippage-free posture
angular velocity estimating means; and

25   an integrating means for integrating at least the
posture angular velocity obtained by correcting a
detected value of the posture angular velocity detecting

means by using the drift correction value, thereby to estimate a posture angle of the predetermined part,

wherein the drift correction value determining means determines a new drift correction value so as to bring a

5   difference between a posture angular velocity obtained by correcting a detected value of the posture angular velocity detecting means by using the drift correction value and a posture angular velocity estimated by the slippage-free posture angular velocity estimating means

10   close to zero.

2.   The system for estimating a self posture of the leg type moving robot according to Claim 1, wherein the drift correction value determining means comprises a means for determining whether the rotational slippage is taking

15   place on a contact surface between the robot and a floor, and a value of the drift correction value is retained if it is determined that the rotational slippage is taking place.

3.   A system for estimating a self posture of a leg

20   type moving robot, comprising:

a posture angular velocity detecting means for detecting a posture angular velocity of a predetermined part of a leg type moving robot;

a drift correction value determining means for

25   determining, on the basis of at least a detected value of the posture angular velocity detecting means in a state wherein a motion of the robot is stopped, a drift

correction value relative to the detected value; and

an integrating means for integrating at least a posture angular velocity obtained by correcting a detected value of the posture angular velocity detecting

5   means by the drift correction value while the robot is in motion so as to estimate a posture angle of the predetermined part.

4.   The system for estimating a self posture of a leg type moving robot according to Claim 1, wherein the drift

10   correction value determining means determines the drift correction value on the basis of a component in a yaw direction of a detected value of the posture angular velocity detecting means and a component in the yaw direction of a posture angular velocity estimated by the

15   slippage-free posture angular velocity estimating means.

5.   The system for estimating a self posture of a leg type moving robot according to Claim 3, wherein the drift correction value determining means determines the drift correction value on the basis of a component in the yaw

20   direction of a detected value of the posture angular velocity detecting means.

6.   The system for estimating a self posture of a leg type moving robot according to Claim 1 or 3, wherein the predetermined part is a body of the robot.